



Australian Government
Department of Agriculture
and Water Resources

Climate Smart Agriculture: Irrigation water management

California – Australia
Webinar
20 June 2017

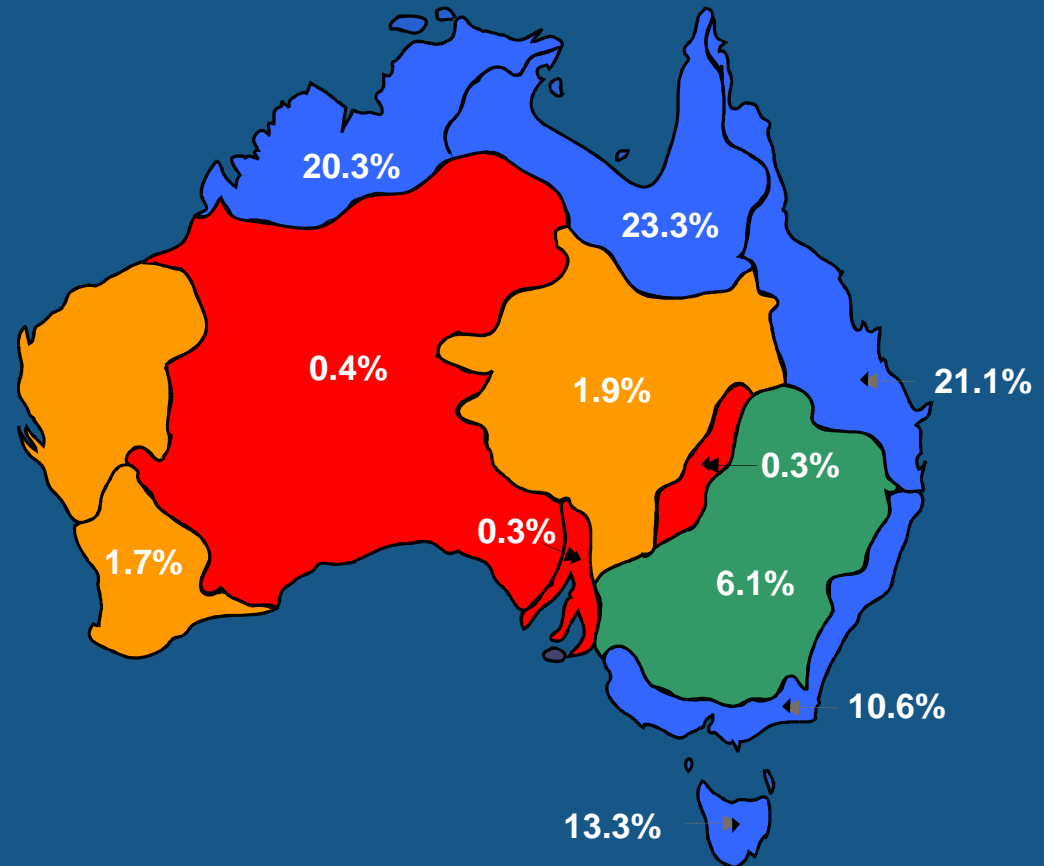
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Distribution of Australia's Rainfall Runoff

Challenges

- Extremes of weather
- Population growth
- Climate change threats
- Declining ecological health of waterways and wetlands
- Water scarcity
- Economic dependence of rural towns
- Disconnect between water and location of people



Water Management in Australia

Key concepts

- Water is publicly owned until it is legally allocated to a water access licence holder.
- Water is mainly a State responsibility
- Trans-boundary issues (e.g. Murray-Darling, Great Artesian, Lake Eyre Basins) managed via intergovernmental agreements (Not legally binding)
- Water operations are regulated by the states/territories through water access licences , which are a tradable asset
- Prices are set by the market – normal supply/demand drivers
- Same rules apply for all traders/users – governments, private irrigators, investors or industry

Policy Driven Water Management

Principles

National Water Initiative is the agreed national policy framework for how water resources should be managed and shared to support communities, the environment and economic development. NWI principles also underpin the regulatory framework and the operation of water markets.

Legislation & Regulation

Commonwealth Legislation

- Water Act 2007
- WELS Act
- Water charge and market rules
- Water information
- Commonwealth Environmental Water Holder
- Lake Eyre Basin Intergovernmental Agreement Act 2001

State Legislation/regulation

- State Water Acts
- Water resource planning
- Operations of state water authorities

Murray
Darling Basin
Agreement

Implementation

Australian Government

- MDB Sustainable diversion limit
- Water recovery strategy
- Water markets
- Strategies, framework and guidelines for water quality management, urban water and groundwater management.

States

- Water resource plans
- Urban water management
- Groundwater management
- Water quality management

Programmes

Commonwealth & States

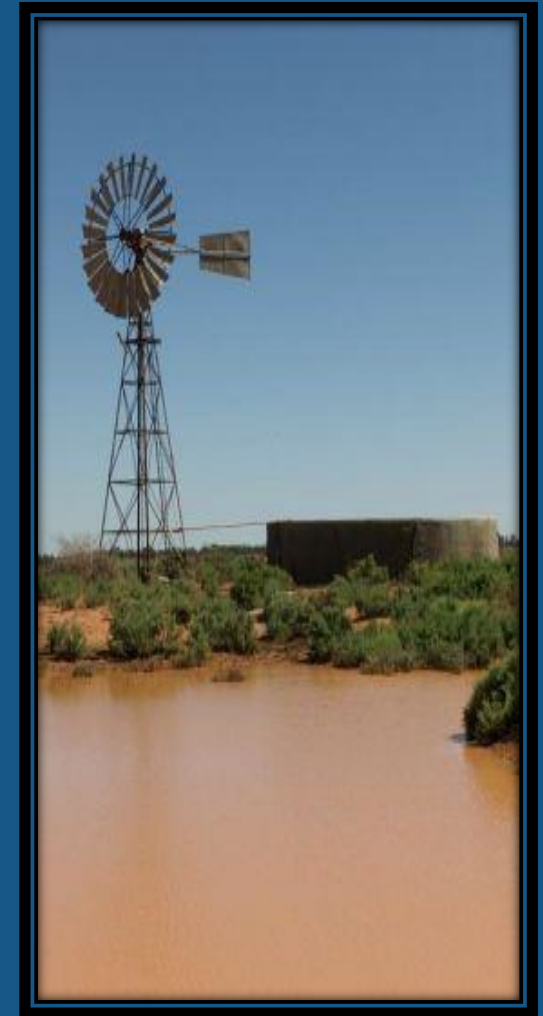
- Irrigation efficiency projects
- Environmental measure projects
- Urban water programs

States

- Infrastructure projects

National Water Initiative - the blueprint for water reform

- Important NWI principles:
 - Economic and efficient use of water
 - Surface and groundwater mostly treated the same
 - Market based mechanisms to allocate new water
 - User-pays for water management
 - Efficient functioning of water markets
- The NWI provides greater certainty and confidence for investors, particularly the unbundling of water entitlements from land
- Water for the environment explicitly included
- Commonwealth water infrastructure investments are conditional upon the implementation of NWI arrangements.
- The NWI principles provide investment security for the Commonwealth, state and territory governments and water users.



Murray-Darling Basin

- Supports two thirds of Australia's irrigated agriculture
- Agriculture in the basin contributes \$15billion to the national economy annually
- Supports significant biodiversity values
- Sustains 16 Ramsar listed wetland sites

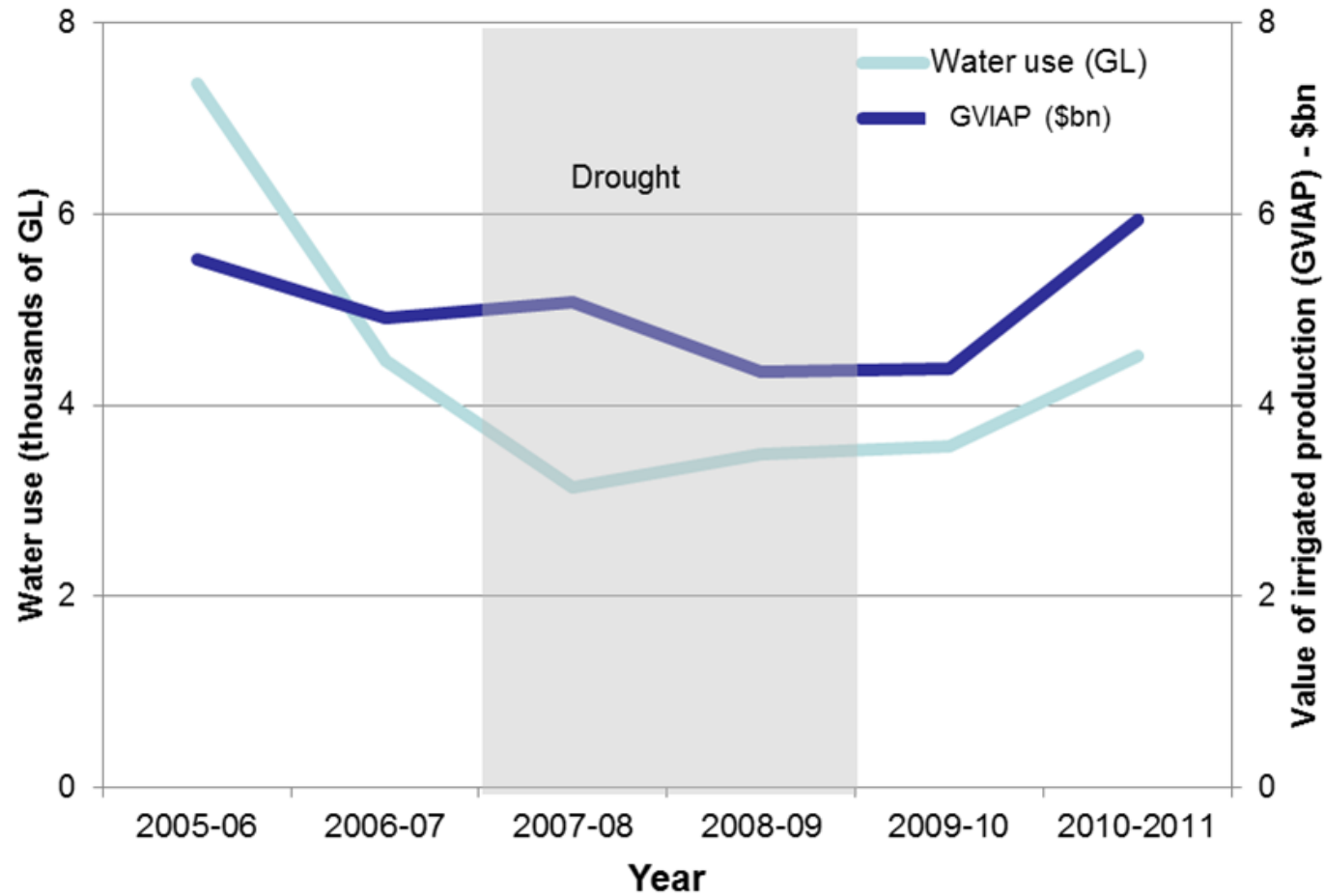


Whole of Basin Planning

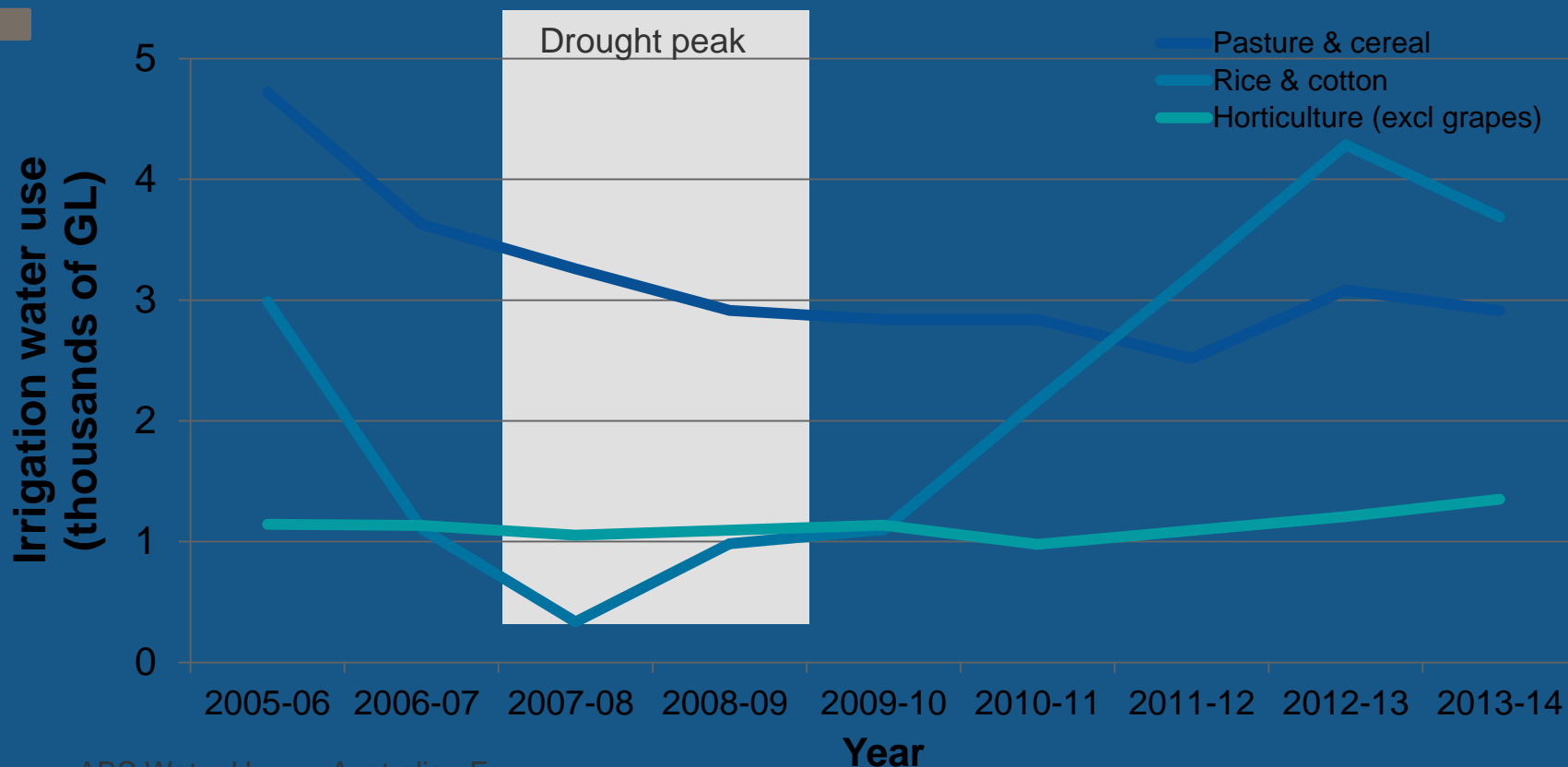
Murray-Darling Basin Agreement

- Sustainable Diversion (extraction) Limits - surface and groundwater
- Basin-wide environmental objectives
- Consistent basin-wide water trading rules
- State-based water resource plans and accreditation
- Environmental watering plan and management of environmental water
- Water Quality & Salinity Management Plan
- Monitoring and Evaluation program

Murray Darling Basin Water use and GVIAP



During the drought, irrigation water use by horticulture stayed relatively unchanged while water used by annual crops fell dramatically



Source: ABS Water Use on Australian Farms

Water Markets

- Separation/decoupling of water from land property rights crucial for development of water markets
- Water operations are regulated by the states/territories through water access licenses , which are a tradable asset
- Water markets play a critical role in allowing water to its highest value use, including for urban use
- The market price of water – determined by water users rather than government - informs decision making about water use and trade
- The Australian Government uses water markets to purchase and direct water for environment use.
 - Same rules apply to government as any other water user in the market

What Enables Water Markets to Work Well ?

- Good information flows
- Legal security over entitlements
- Minimisation of legal barriers/distortions
- Minimisation of transaction costs
- Consistent and timely transactions
- Adequate volumes to trade
- Trust that participants, including government agencies, will honour their obligations



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Thank You

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Water Division

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